January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Revision ID:

Item Name:

Replacement Skidtube

Start Date:

05/01/2010

Start Qty: 1.00

Required Date: 18/01/2 2 0



Accept



Setup Start



Req'd Qty: 1.00

Reference:

Approvals:

Process Plan:

QC:

Date:

Tooling:

Date:

SPC (Y/N):

Date:

Date:

Cust Item ID:

Customer:

Run

Start



Stop

Sequence ID/ Work Center ID Operation Description Set Up/ **Run Hours**

Draw Number Draw Rev.

Plan Accept Qty Code

Reject Qty

Reject Insp. Stamp Number

Draw Nbr

Revision Nbr

100

Document Control

Memo

0.00

0.00

Photocopy bluefile &type labels per PPP D204-635-041

CHG 002

W/O:		WORK ORDER CHANGES										
DATE	STEP	PROCEDURE CHANGE By					Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
			. 1							·		
Part No	:	PAR #:	Fault Categ	ory:	_ NCR:	Yes N	lo DQ	\:	Date:]		
Resolution:		Disposition	:	_ QA: N	I/C Clo	sed:		Date: _				
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NCR)		• •				
D.4.T.F	0.750	Description of NC	Corrective Action S Initial Action Description Chief Eng Chief Eng		on B		Verific	ation	Approval	Approval		
DATE	STEP	Section A			Sign & Date		& Section C		Chief Eng	QC Inspector		
-												
		}										

Work Order ID 54890

January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Revision ID:

Item Name:

Replacement Skidtube

Start Date:

05/01/2010

Required Date: 18/0 32010

Start Qty: 1.00 Req'd Qty: 1.00



Accept

Run

Setup Start

Stop



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date: Date:



Stop

Sequence ID/ Work Center ID Operation Description Set Up/ **Run Hours**

Draw Number Draw Rev.

Plan Code Accept Qty

Reject Qty

Reject Insp. Number Stamp

110



Skidtubes

Memo

0.00

0.00

1- Inspect mat'l D2500-1-190 for damage

2-Cut D2500-1-190 per Dwg D2590 .Deburr ends

3-Drill pilot holes using drill jig DT 8149 & DT8711-1&-2

4-Acid etch and Alodine tube per QSI 005 4.1

5-Open holes to 0.500" as per Dwg D2590 without cutting fluid

6-Countersink holes as per Dwg D2590 without cutting fluid

7-Deburr and blow out all chips from inside of tube

8-Bond web in place per QSI 015. Allow 12 Hrs. cure time beforecutting

Pick:

Qty Part Number Description Sikaflex-291

Batch B-112395

A/R Sikaflex expire date: 2010 01

Start Time: 3:40 pm Fin Time: 10:00 Ale

D MO 10-01-07

W/O:		WORK ORDER CHANGES									
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
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Part No:		_ PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
•					
3	Resolution:		Disposition:	QA: N/C Closed:	Date:

	WORK ORDER NON-CONFORMANCE (NCR)								
	Description of NC	1	Corrective Action Section B		Verification	Approval	Approval QC Inspector		
STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng			
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January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Revision ID:

Item Name:

Replacement Skidtube

Start Date:

05/01/2010

Start Oty: 1.00 Required Date: 18/012010

Req'd Qty: 1.00



Accept

Setup Start



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Start Run



Stop



Sequence ID/ **Work Center ID**

Operation Description

Set Up/ **Run Hours** Draw Number

Draw Rev.

Plan Accept Qty Code

Reject Qty

Reject Insp. Number Stamp

120



CNC Delta 100 Bender

Bend as per program D2590.C on CNC Bender

0.00

Date:

130



Skidtubes

Memo

1-Cut tubes as per Dwg. D2590

0.00

0.00

2-Deburr ends after cutting. Remove alodine from around holes

BE 10.01-07

140

Quality Control

Memo

QC5- Inspect part completeness to step on W/O

W/O: WORK ORDER CHANGES								
DATE	STEP	PROCEDURE CHANGE	. `	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector
			•					
Part No):	PAR #: Fault Category:	NO	CR: Yes	No DQ	A:	_ Date: _	

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

	WORK ORDER NON-CONFORMANCE (NCR)									
	Description of NC	Corrective Action Section B			Varification	Approval	Annuaral			
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Work Order ID 54890

January 5, 2010 8:28:48 AM

Accept Setup Start Item ID: D204-635-041 Revision ID: Stop Item Name: Replacement Skidtube Start Qty: 1.00 **Start Date:** 05/01/2010 **Cust Item ID:** Required Date: 18/01/310 Req'd Qty: 1.00 **Customer:** Reference: Run Start Tooling: Date: Process Plan: Date: **Approvals:** Stop Date: SPC (Y/N): Date: QC: Draw Draw Plan Accept Reject Reject Insp. Sequence ID/ Set Up/ Operation Number Stamp Number Rev. Code Oty **Qty Run Hours** Description Work Center ID 0.00 150 0.00 Skidtubes Memo 1-Prepare tube for welding D2576-3 StepRemove alodine as required. Skidtubes 2-Weld step D2576 as per Dwg. D2590 and QSI 004 A/R. Aluminum Rod 3-Weld crossbolt spacers D2579 as per Dwg. D2590 and QSI 004. For spacers, weld one side, pass 3/8" drill, weld other side, pass D2579 3/8" drill A/RCI 2 Aluminum Rod 4-Grind welds as per Dwg D2590 Grind flush ridge made from bending 5-Drill holes for wearplates using DT 8218 & DT8937 Open holes to 19/64", adjust stopper not to hit web.Deburr 6-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2590. Deburr holes 7-Drill pilot holes for aft cap using DT 8215 Open holes to #6 Drill bit. Deburr

8-Drill pilot holes for Towring using DT9425, open to .640" and Deburr

****verified dim. before drilling****

W/O:		WORK ORDER CHANGES								
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC inspector			
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		,								
						1				

Part No:	PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
Resolution:		Disposition:	QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B			Approval	Approval			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Section C C	Chief Eng	QC Inspector				
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Work Order ID 54890

January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Accept



Setup Start



Page 5

Stop

Start Date:

Revision ID:

Item Name: Replacement Skidtube

Required Date: 18/0 2010

05/01/2010

Start Qty: 1.00 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Reject

Sequence ID/ Work Center ID

160

QC

Quality Control

Operation Description

OC10- Inspect visual per QSi004- ground welds

Set Up/ **Run Hours**

Draw Number

Rev.

Plan Accept Qty Code

Reject Qty

Run

Insp. Number Stamp

170



Quality Control

QC5- Inspect part completeness to step on W/O

0.00 0.00

Memo

Memo

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

Powdercoat

180

Powder Coating

Memo

START TIME: OVEN TEMPERATURE: FINISH TIME:

W/O:		WORK ORDER C	WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			

Part No: DZUG - 635 - 641 PAR #: Fault Category: Skiphulas + Inspection NCR: Yes No DQA: Date: 10 01/28

Resolution: Rewark QA: N/C Closed: Date: 10 01/28

NCR: 51	4890	WC	ORK OR	DER NON-CONFORMANCE	(NCR)			
DATE	OTED	Description of NC	Corrective Action Section B			Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector
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	#	the use the sight 205 not 201.	, 6,5,0,1	Hem of Deen Dycther Dall Plc to chem are for und.	M 011(13	8 igled 14	GP.	
		notices. R.C. Lock of a tention at Sey. \$ 18 8 and @ censpect	10.01.12	out il 606176 m 112442 6	10/01/12	S (0)0() (2)	10.01.12	10/01/12
		40.640 TOW-RING HOLE IN WRONG LOCATION.	ap	- weld As Per QUI 004 A/R M112860	10/01/13	S volonly	4	Ç
			13.01.12	- Bull word - Dill Tokin Too Ring hele in Correct Locatio Per Duy.	M (0/1/D)	S locky	10.01.12	coliliz
		al all entries	10.01.12	- Re Al-Dri + P/c Per aszos	10-01120	H	90.01.12	Sulula

Work Order ID 54890

January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Revision ID:

Replacement Skidtube Item Name:

Start Date:

05/01/2010

Start Qty: 1.00

Operation

Description

Required Date: 18 21/2010 Req'd Qty: 1.00

OC:



Accept

Setup Start

Stop

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Accept

Qty

Run

Stop

Start



Sequence ID/ Work Center ID

190

Memo

QC3- Inspect Part Finish

Set Up/ Run Hours

0.00

0.00

Draw Number

Rev. Code Reject Qty

Reject Insp. Number Stamp

10-01-21,

Quality Control

W/O:			WORK ORDER (CHANGES				1
DATE	STEP	PI	ROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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100							2	
Part No):	PAR #:	Fault Category:	NCR: Ye	es No DQ	 A:	Date:	
			Disposition:					

NCR:		`	WORK ORE	DER NON-CONFORMANO	CE (NCR)			
		Description of NC		Corrective Action Section B	Verification	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector
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Work Order ID 54890



January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Revision ID:

Item Name:

Replacement Skidtube

Start Date:

Reference:

Approvals:

05/01/2010 Required Date: 1301/2010 Start Qty: 1.00 Req'd Qty: 1.00



Date: _____

Date:

Accept

Cust Item ID: **Customer:**

Run

Setup Start

Start

Stop

Reject

Qty

Sequence ID/ Work Center ID

Operation Description

Process Plan:

QC:

Set Up/ Run Hours

SPC (Y/N):

Tooling:

Draw Number

Rev.

Date:

Date:

Code

Accept Oty

Number Stamp

Insp.

200

HandFinish

Hand Finishing

Memo

0.00

0.00

1-Install inserts & weamlates & gaskets using a drop of Sikaflex on insert holes before installing weamlates

A/R Sikaflex-291

Sikaflex expire date:

2-Coat D2594-3 O'rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2590 and seal Fwd Step & Aft Cap with

Sikaflex. Clean excess adhesive A/R Sikaflex-291

Sikaflex expire date:

5-Wing Walk as per Dwg 02590 and QSI 005

4.4

1 M10-01-22 0-

W/O:				WORK ORDER	CHANGES				1				
DATE	STEP		PRO	OCEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
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Part No	:		PAR #:	Fault Category:	NCF	R: Yes	No DQ	A:	Date: _				
	R	esolution:		Disposition:	QA:	N/C C	losed:		Date:				

NCR:		•	WORK ORDE	ER NON-CONFORMANC	E (NCR)							
D.4.T.F.	0755	Description of NC		Corrective Action Section B	Verification	Approval	Approval					
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector				
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NOTE: D	ate & initial a	all entries	•					·				

Work Order ID 54890

January 5, 2010 8:28:48 AM

Item ID:

D204-635-041

Revision ID:

Item Name: Start Date:

Reference:

05/01/2010

Required Date: \$8/01/2010

Replacement Skidtube

Start Qty: 1.00 Reg'd Qty: 1.00

Cust Item ID:

Customer:

Number

Run

Start

Stop

Stop

Approvals:

Process Plan:

QC:

Date:

Date:

Tooling: SPC (Y/N):

Accept

Set Up/

Run Hours

Date:

Date:

Plan

Code

Draw

Rev.

Accept

Qty

Reject Qty

Setup Start

Reject Insp. Number Stamp

Sequence ID/ Work Center ID

210

Quality Control

211

Operation Description

OC5- Inspect part completeness to step on W/O

Identify + STock

220

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

WW.01.27

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W/0:51	0:54890 WORK ORDER CHANGES						3	
DATE	STEP	PROCEDURE CHANGE	By Date Qty Appro					
10 /01/27	211	PLEASE ADD "Identify 9. Stock" seg.	M	10/11/27		h	101.627	

Part No: D204-635-041 PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
Resolution:	Disposition:	QA: N/C Closed:	Date:

NCR: WORK ORDER NON-CONFORMANCE (NCR)							
	Description of NC		Corrective Action Section B	Verification	Approval	Annuaral	
STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector
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	STEP	STEP Description of NC	STEP Description of NC Section A Initial	STEP Description of NC Section A Corrective Action Section B Initial Action Description	STEP Description of NC Section A Initial Action Description Sign &	STEP Description of NC Section A Initial Action Description Sign & Section C	STEP Description of NC Section A Initial Action Description Sign & Verification Section C Chief Eng

Picklist Print

January 5, 2010 8:28:52 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 05/01/2010

Required Date: 18/01/2010

Page 1

Start Qty: 1.00

Required Qty: 1.00

Component I(a) D/	Replacement Item ID	Mfg/ Purch	Bin Item	Primary . Location	Last Cocation	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Wate Sued	Status
ALS7-1032-130		Purchased	No			180	Each	1,530.000	44.0000			

Insert

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse			
ST	1530		
105855	16		
108606	52		
111529	188		- the land
111779	313		44 /2 1001-3
112772	11		
113238	950		
	180 Eacl	1.975.000 2.0000	

AN3-5A

Purchased

No

Boit	

Location	
Main Warehouse	
ST	
100100	

105057

Warehouse

Loc Code Loc Qty 1975 188 1787

2 1210-01-22

W/O:		WORK ORDER C	HANGES		,	· ·
DATE	STEP	PROCEDURE CHANGE	By D	ate Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR #: Fault Category:	NCR: Yes No	DQA:	Date: _	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B	3	Verification	Approval Chief Eng	Approval QC Inspector			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C					
								<u> </u> 			
Ĺ	ate & initial a										

Resolution:

January 5, 2010 8:28:52 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:



Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Ite (20)/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last \$ '	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Drafe d Is and ed	Status
AN3C4A		Purchased	No			180	Each		44.0000	· · ·		e e

BOLT

washer

Warehouse	<u>Lo</u>	Loc Qty		
Location				
Main Warehouse				
ST		1195		
112314		13		
112720		12		
112724		3		
112829		1		
112991		2		
113121		64		
113226		586		
113359		14		
113422		500		
	180	Each	416.0000	44.0000

44 bl 1001-22

AN960C10L

Warehouse

No

Loc Code Loc Qty

Location

Main Warehouse ST

112116

112612

NPS 1149COB32R

Purchased

103585

100

100

316

156 160 44 BR 1001-22

W/O:	_ <u>.</u>		WO	RK ORDER CHANG	GES	4. · · · · · · · · · · · · · · · · · · ·		
DATE	STEP	PRO	PROCEDURE CHANGE			Date Qt	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No: PAR #:		Fault Categ	ory:	NCR: Yes	No DQA : _	Date: _		
Resolution:			Disposition	•	QA: N/C CI	osed:	Date: _	
NCR:			WORK ORDE	R NON-CONFORM	ANCE (NCR)		
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January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Start Date: 05/01/2010

Required Date: 18/01/2010

-BR 10-01- 22.

Start Qty: 1.00

Required Qty: 1.00

keried

Comments:

Component Issa ID/ Item Name 👙

Replacement Mfg/ Item ID

Purch

Purchased

Manufactured

No

Bin Primary Item Location Last Locatic

Route Seq ID

180

Unit of Measure

Each

Qty on Hand

4,915.000 2.0000

Remaining Qty To Pick Issued

Qty

Status

AN960JD10L

Washer

Loc Code Warehouse Loc Qty Location

Main Warehouse

ST 101291 104885 105793 109632 110985

4464 180 Each

4915

16

25

236

174

250,0000 10.0000

D2594-1

Plug, 205 Skidtube

Loc Code Loc Oty Warehouse Location Main Warehouse 122 FP 17 54008 54643L 105 Main Warehouse 128 ST 42221 16 42807 92 3 43884 2 46435 51527

10 th 10 01-22

Page 3

51757

W/O:		WORK ORDER CHANGES		Tel 17em - T		ŧ	
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR #: Pault Category: N	CR: Yes	s No DQ	A:	Date: _	

Resolution: _____ Disposition: _____ QA: N/C Closed: ____ Date: ____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC		Corrective Action Section 8	3	Verification	Approval Chief Eng	Approval QC Inspector		
DATE	DATE STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C				
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NOTE: D	ate & initial a	III entries				•				

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Component fiem	ID/
Item Namo	

Replacement Mfg/ Item ID

Purch

Manufactured

Manufactured

Primary Item Location

No

Location

180

Unit of Route Seq ID Measure

Loc Qty

27

27

335

Each

Qty on Hand

362.0000

Loc Code

Remaining Qty To Pick

Start Date: 05/01/2010

Start Qty: 1.00

10.0000

Issued

Required Date: 18/01/2010

Required Qty: 1.00

Date Issued Status

D2594-3

O-Ring, 205 Skidtube

Warehouse Location Main Warehouse

> FΡ 51613

Main Warehouse ST

52562 🕶

180

335 Each

160.0000 1.0000

D2855

Cap

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP6	160	
50513	1	
50770	1	
51539	42	
53701	116	

Dan Ae	rospace L	τα								
W/O:			WORK ORDER CHANGES							
DATE	STEP	PRO	***	Ву	Date	Qty Chie	oroval ef Eng / od Mgr	Approval QC Inspector		
									1	
Part No	:	PAR #:	Fault Category:	NC	R: Yes	No DQA :	D	ate: _		
	Res	olution:	Disposition:	Q <i>i</i>	A: N/C CI	osed:		ate: _		
NCR:			WORK ORDER NON-CON	FORMANC	E (NCF	R)				
		Description of NC	Corrective Action	on Section B		Verificat	ion An-	Approval	Approval	
DATE	STEP	Section A	Initial Action Des	scription	Sign 8	Section	,	ef Fna	Approval OC Inspector	

NCR: WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC		Corrective Action Section E	Verification	Approval	A	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector
				All Hills and an analysis of the state of th				

Picklist Print

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Compositit	Item	ID/
Item Name		

Item ID

Replacement Mfg/ Purch

Manufactured

Manufactured

Bin

1251 Primary Item Location

Escation

Route Seq ID

180

Unit of Measure Hand

Each

16.0000

Qty on Remaining Qty To Pick

Start Qty: 1.00

1.0000

Start Date: 05/01/2010

Issued

Status Issued

Required Date: 18/01/2010

Required Qty: 1.00

1 fol 10-01-22

D3564-11

Wearshoe

Warehouse	Loc	: Qty	Loc Code			
Location						
Main Warehouse						
FP19		14				
52125		14				
Main Warehouse						
ST		2				
45823		1				
50112		1				
	180	Each	34.0000	1		

1.0000

D3564-13

Wearshoe

Warehouse	Loc Qty	Loc Code	·
<u>Location</u>			
Main Warehouse			
FP17	22		1 / 10-01-00x.
51611	22		1 1/2 10-01 012.
Main Warehouse			
ST	12		
45409	2		
46495	10		

W/O:

W/O:			WORK ORDER (CHANGES				, ,
DATE	STEP	PRO	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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	ż							
Part No	:	PAR #:	Fault Category:	NCR: Ye	es No DO	Δ:	Date:	1

Part No:		PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:	
	Resolution:		Disposition:	QA: N/C Closed	i:	Date:	

NCR:	WORK ORDER NON-CONFORMANCE (NCR)								
		Description of NC	Corrective Action Section B		Description of NC		Verification	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date		Chief Eng	QC Inspector	

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Component	Item	ID/	
Item Name			

Replacement Mfg/ Item ID

Purch

Bin Primary Item Location

LEST Lication Route Seq ID

180

Unit of Qty on Measure Hand

Remaining Qty To Pick

Start Date: 05/01/2010

Start Qty: 1.00

Qty Issued Status

Required Date: 18/01/2010

Required Qty: 1.00

Issued

D3564-7

Manufactured

Manufactured

Each

22.0000 1.0000

Loc Code

Wearshoe

Warehouse
Location
Main Warehouse
ST
33803

ST

44659 45825

43229 46492

22 5 15 2 180 Each

2

Loc Qty

13.0000 1.0000 ____ BR100 -22

D3564-9



Wearshoe

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP19	11	
53806	11	
Main Warehouse		

-byl 10-01-22

W/O:			WORK ORDER (CHANGES					: *
DATE	STEP	P	ROCEDURE CHANGE	В	у	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
									,
								٠٠,	,
									,
Part No);	PAR #:	Fault Category:	NCR: \	res 1	No DQA	\:	Date:	L
	R	esolution:	Disposition:	QA: N/	C Clo	sed:		Date:	

NCR:	WORK ORDER NON-CONFORMANCE (NCR)							
		Description of NC		Corrective Action Section E	3	Verification	Approval	A
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspecto
				•				

NOTE: D	ate & initial a	II entries			1			

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Component Item ID/	Replacement	Mfg/
Item Nazo:	Item ID	Purch ·

Manufactured

Manufactured

Item Location

Primary

187451 cation

Route Seq ID Unit of Measure

Hand

Remaining Qty To Pick Issued

Start Date: 05/01/2010

Start Qty: 1.00

Status

Required Date: 18/01/2010

Required Qty: 1.00

Date

a bol 10-01-22

Issued

D3566-1

No

Bin

180

27.0000 2.0000 Each

1.0000

Gasket

Warehouse	Loc Oty	Loc Code
Location		
Main Warehouse FP 550l	22	
FP 55011	22	
52512	3	~
54480	19	
Main Warehouse		
ST	5	
46349	1	
51218	1	
51259	3	

D3566-13

Gasket

Loc Qty Loc Code Warehouse Location Main Warehouse 92 FP 9 51606

180

Each

83

2

Main Warehouse ST

> 45717 50265

53461

94.0000

1 Bil 10-01-22

Shop Packet Print

W/O:			WO	RK ORDER CHANG	ES					•
DATE	STEP	PR	PROCEDURE CHANGE				Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
	į.									*
									,	
Part No	:	PAR #:	Fault Cate	jory:	_ NCR:	Yes I	lo DQ	식 :	_ Date: _	
	Res	solution:	Disposition	n:	QA: 1	VC Clo	sed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORM	ANCE	(NCR)			
DATE	CTED	Description of NC Corrective Action Section					Verifi	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Sect		Chief Eng	QC Inspector
									<u> </u>	
		•								

Picklist Print

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

1.0000

Required Qty: 1.00

Status

Component tem ID/ Item Na

Replacement Mfg/ Item ID

Purch

Manufactured

Manufactured

Manufactured

Primary Item Location

No

Listi Legition Route Seq ID

180

110

Unit of Measure

Each

Oty on Hand 8.0000

Remaining Qty To Pick

Qty Issued Issued

D3566-7

Gasket

Warehouse Location

Loc Qty

Loc Code

Main Warehouse

ST

37354✔

8

8

Each

3

Each

96.0000

18/10-01-22 1.0000

D2500-1-190



Ext'n -'I' Beam Tube 4"

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
LG	93	
52319	93	(7)
Main Warehouse		
ST	3	

46468

110

0.0000 1.0000

D2597

204 Web

Dart Aerospace Ltd W/O: WORK ORDER CHANGES DATE STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr QC Inspector Approval QC Inspector

Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ___ Date: ___

Resolution:		solution:	Disposition: QA: N/C Clos			osed: Date:		
NCR:			WORK ORDER NON-CONFORMANCE (NCR)					
		Description of NC		Corrective Action Section	В	Verification	A	A
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector
		· · · · · · · · · · · · · · · · · · ·						
							•	
NOTE: D	ate & initia	l all entries						

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE

Picklist Print

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name: Replacement Skidtube

Comments:

Com	por tem ID/	
Item	Na 🐲	

Replacement Mfg/ Item ID

Purch

Manufactured

Lunia

Ligation

Start Date: 05/01/2010

Required Qty: 1.00

Required Date: 18/01/2010

Page 9

Start Qty: 1.00

Remaining Status Issued Qty To Pick Issued

D2576-3

No

Primary

Item Location

Seq ID 150

Route

Measure Each

Unit of

151.0000 1.0000

Qty on

Hand



4 4MM121				E.181 1
Step	(ma	ching	deta	il)

Warehouse Location	Loc Qty	Loc Code	
Main Warehouse			
ST	151		
43504	3		
46661	101		de 10/61/11
52215	47		

Dart	Aeros	pace	Ltd
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W/O:			WO	RK ORDER CHANGES				-	9 9
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
									*
Part No	:	PAR #:	Fault Categ	ory: 1	NCR: Yes	No DQ	A:	Date:	
	Re	esolution:	Disposition	:	QA: N/C CI	osed:		Date: _	
NCR:	ļ	•	WORK ORDE	R NON-CONFORMAN	CE (NCF	₹)		*	
DATE	STEP	Description of NC	Corrective Action Section B		Verificatio		cation	Approval Ap	Approval
	0121	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date		Section C	Chief Eng	QC Inspector
						_	<u> </u>		
	1		1		1	1		I	1

January 5, 2010 8:28:53 AM

Work Order ID: 54890

Parent Item:

D204-635-041

Parent Item Name:

Replacement Skidtube

Comments:

Compor	Item ID/
Item Nagge	

Replacement Mfg/ Item ID

Purch

Manufactured

Primary Item Location

No

125° Lacation Route Seq ID

150

Unit of Measure

Each

Qty on Hand

381.0000 17.0000

Remaining Otv To Pick

Start Qty: 1.00

Start Date: 05/01/2010

Qty Issued Date Issued

Required Qty: 1.00

Required Date: 18/01/2010

Status

D2579

Crossbolt Spacer

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse		!	
LG	259		
51525	4		
53780	3		

38

214

122

54543 54642 Main Warehouse ST

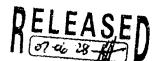
51315

43988 46434 46956 47797 2 48272 71 51314 30 17 SE

W/O:			WO	RK ORDER CHANGE	S				
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
			•						
Part No		PAR #:	Fault Categ	ory:	NCR: Yes	No DQ	A:	Date:	
		esolution:							
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NC	R)			
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval
- DAIL	-	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Section C Date	1		QC Inspector



	DESIG	#	ORAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
	CHECK	(EO	APPROVEQ/	DRAWING NO.	REV. D
i		#	#	D2590 SHEET	1 OF 2
1	DATE			TITLE	SCALE
	07.0	4.05		204 SKIDTUBE ASSEMBLY	NTS
	Α		96.09.16	NEW ISSUE	-
	В		96.12.02	AS MANUFACTURED	
	Ç		98.08.28	REDRAWN, INCLUDED DEO 9094/90	97
	Q		07.04.05	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124	



y. 社務:

QTY -041	Part Number	Description		
Х	D2590-041	SKIDTUBE ASSEMBLY		
1	D2500-1-190	EXTRUSION		
1	D2576-3	STEP		
17	D2579	CROSS BOLT SPACER		
. 10	D2594-1	PLUG		
10	D2594-3	O-RING		
1	D2597	204 WEB		
1	D2855	AFT CAP		
1	D3564-7	WEARSHOE		
1	D3564-9	WEARSHOE		
1	D3564-11	WEARSHOE		
1	D3564-13	WEARSHOE		
2	D3566-1	GASKET		
1	D3566-7	GASKET		
1	D3566-13	GASKET		
44	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT		
44	AN3C4A	BOLT		
Ž	AN3-5A	BOLT		
44	AN960C10L	WASHER		
2	AN960JD10L	WASHER		

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLL 3D COPY

SUBJECT TO ALCEND JENS

WITHOUT MOTICA

WORK ORDER

NO. 54870

PH 10-1-05

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2597 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 INDEMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-204 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (44 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

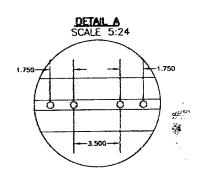
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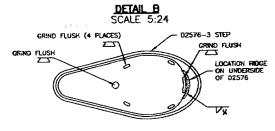
Dart Aerosp	pace Ltd
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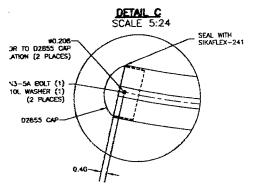
W/O:				WORK ORDER	CHANGES					
DATE	STEP		PROCEDURE	CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Part No	:	PAR	#: Fault	Category:	NCI	R: Yes	No DQ	A:	_ Date: _	
	Re	solution:	Dispo	sition:	QA	N/C C	closed:	6 - 1 · 1 · 1 · 1	Date: _	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
		Description of NC		Corrective Action Section E	}	Verification	A	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC inspector
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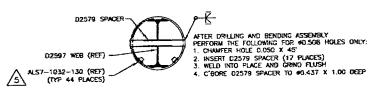


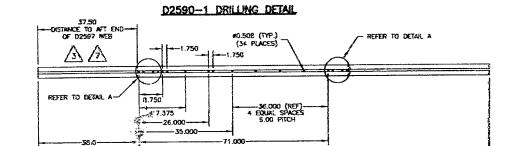






SECTION D-D SCALE 5:24





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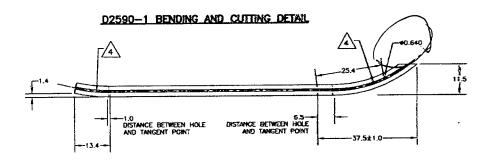
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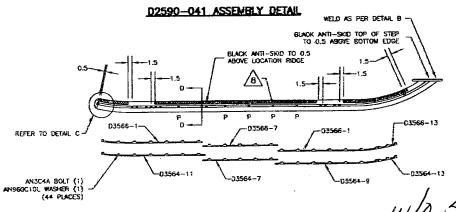
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18 TO

SCALE

1:24





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204 SKIDTUBE ASSEMBLY 07.04.05

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
						,		

Part No:	PAR #: _	Fault Category:	NCR: Yes No DQA:	Date:
28.44	Resolution:	Disposition:	QA: N/C Closed:	Date:

NCR:			WORK ORDE	ER NON-CONFORMAN	CE (NCR)			
		Description of NC			Verification		Annessal	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector

								ļ.

NO.	aai
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AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Borday Elliott	
Job number: 54202)	
Part number: Daos 634 041	
Description: 205 skid tube	····
Welding Process: Tig Mig]	
Base materiel: Aluminium	
Current: AC[] DC[]	

TEST REQUIREMENTS AND RESULTS

Visual: Penetration:	pass[了 fail[] pass[了 fail[]
<u>UNACCEPTABLE</u>	
Cracks: Undercut: Pin holes: Overlap (cold lap) Porosity (surface): Coloration:	pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[] pass[] fail[]
Qualifier (o))	Date of Test Coupon (9.12.1) Date of Test Coupon (9.12.17
\mathcal{G}	

The above named individual is qualified in accordance with AWS D17.1.2001 to weld